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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,687	02/13/2004	Wolfgang Geiger	32860-000689/US	5884
30596	7590	11/01/2007		
HARNESS, DICKEY & PIERCE, P.L.C. P.O.BOX 8910 RESTON, VA 20195			EXAMINER BOWERS, NATHAN ANDREW	
			ART UNIT 1797	PAPER NUMBER
			MAIL DATE 11/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/777,687	<b>Applicant(s)</b> GEIGER, WOLFGANG	
	<b>Examiner</b> Nathan A. Bowers	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 1) Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kluttz (US 6410275) in view of Antonevich (US 5066600).

With respect to claims 1, 6, 7, 11, 16-18 and 20-26, Kluttz discloses an analytical and diagnostic instrument comprising an analysis chip for testing biological material. The analysis chip includes a carrier (Figure 1:10) and a biosensor contained within dual reaction chambers (Figure 1:12). Each of these reaction chambers includes an opening at the top of the carrier that is capable of functioning as either an inlet or an outlet. Construction of the carrier is described in column 7, line 49 to column 8, line 42. Column 6, line 61 to column 7, line 10 indicates that wells (Figure 1:13) are additionally provided as disinfection devices for the application of a

Art Unit: 1797

disinfection fluid to the reaction chambers. Column 4, lines 5-8 state that the wells are also used to optically detect reaction products and to classify the contents of the reaction solution. Kluttz, however, does not expressly state that the disinfection device is carries out waste classification.

Antonevich discloses a waste classification system in which waste from a biological analysis unit is separated and directed to a desired collection vessel (Figure 4:36). Wastes move through a common drain (Figure 4:26), and a valve (Figure 4:42) is used to direct certain waste components to different collection vessels according to directions from a computer controller (Figure 4:46). This is disclosed in columns 3 and 4.

Kluttz and Antonevich are analogous art because they are from the same field of endeavor regarding analytical and diagnostic instruments.

At the time of the invention, it would have been obvious to separate hazardous wastes generated in the apparatus of Kluttz from non-hazardous wastes. This would have allowed one to isolate dangerous compounds from the general waste solution, and it would have allowed one to take special precautions when disposing of the hazardous wastes. Antonevich teaches that it is often desirable to separate various waste components because they may become dangerous if combined with other types of waste materials.

With respect to claims 2, 3, 12, 13 and 19, Kluttz and Antonevich disclose the apparatuses in claims 1, 11 and 18 wherein the disinfection device is designed as a disposable adapter system connectable to the analysis chip. Clearly, the wells (Figure 1:13) of Kluttz that comprise the disinfection fluid and the detection areas are connected to the reaction chambers.

Furthermore, the apparatus of Kluttz is fully capable of being disposed after use or saved to be re-used later.

With respect to claims 4 and 14, Kluttz and Antonevich disclose the apparatus in claims 3 and 13 wherein the disinfection device is further for reading the analysis chip. As previously indicated, column 4, lines 5-8 of Kluttz state that the wells are also used to optically detect reaction products and to classify the contents of the reaction solution. This is further reflected in claim 19, which describes the use of a detection well.

With respect to claims 5, 8-10 and 15, Kluttz and Antonevich disclose the apparatuses in claims 1, 2, 3, 4 and 11 wherein the disinfection device is comprised of a plurality of adjacent wells (Figure 1:13). These wells are fully capable of holding disinfection fluid, acting as a storage vessel, and serving as a collecting vessel.

2) Claims 6, 7, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doung (US 20020177135) in view of Antonevich (US 5066600).

Doung discloses an analytical and diagnostic apparatus comprising an analysis means for testing biological material. The analysis means includes a carrier in the form of a substrate, and a biosensor in the form of a hybridization array. This is described in paragraphs [0030]-[0033] and in various places throughout the reference. Doung further states in paragraph [0326] that a disinfection device in the form of a thermocontroller is provided for disinfecting the analysis chip. Doung teaches that reaction products are optically detected in order to classify the contents

Art Unit: 1797

of the reaction solution. Doung, however, does not expressly state that the disinfection device is carries out waste classification.

Antonevich discloses a waste classification system in which waste from a biological analysis unit is separated and directed to a desired collection vessel (Figure 4:36). Wastes move through a common drain (Figure 4:26), and a valve (Figure 4:42) is used to direct certain waste components to different collection vessels according to directions from a computer controller (Figure 4:46). This is disclosed in columns 3 and 4.

Doung and Antonevich are analogous art because they are from the same field of endeavor regarding analytical and diagnostic instruments.

At the time of the invention, it would have been obvious to separate hazardous wastes generated in the apparatus of Doung from non-hazardous wastes. This would have allowed one to isolate dangerous compounds from the general waste solution, and it would have allowed one to take special precautions when disposing of the hazardous wastes. Antonevich teaches that it is often desirable to separate various waste components because they may become dangerous if combined with other types of waste materials.

3) Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patno (US 20030224505) in view of in view of Antonevich (US 5066600) and Kureshy (US 20050170356) and/or Kluttz (US 6410275).

Patno discloses an analytical and diagnostic instrument comprising an analysis chip (Figure 7:20) including a carrier and a biosensor. The chip is serviced by a cover (Figure 7:62) comprising plurality of openings that are fully capable of being used as inlets and outlets. This is

Art Unit: 1797

described in column 6, line 3 to column 9, line 49. Column 18, lines 42-67 states that the buffers, probe solutions, and sample solutions are added to the analysis chip using manual or automated pipettes. Patno, however, does not expressly state that the disinfection device is carries out waste classification.

Antonevich discloses a waste classification system in which waste from a biological analysis unit is separated and directed to a desired collection vessel (Figure 4:36). Wastes move through a common drain (Figure 4:26), and a valve (Figure 4:42) is used to direct certain waste components to different collection vessels according to directions from a computer controller (Figure 4:46). This is disclosed in columns 3 and 4.

Patno and Antonevich are analogous art because they are from the same field of endeavor regarding analytical and diagnostic instruments.

At the time of the invention, it would have been obvious to separate hazardous wastes generated in the apparatus of Patno from non-hazardous wastes. This would have allowed one to isolate dangerous compounds from the general waste solution, and it would have allowed one to take special precautions when disposing of the hazardous wastes. Antonevich teaches that it is often desirable to separate various waste components because they may become dangerous if combined with other types of waste materials.

The combination of Patno and Antonevich still differs from Applicant's claimed invention because the combination does not indicate that the pipetting system is used to deliver a disinfection fluid to the analytical chip.

Kureshy discloses an analytical device comprising an automated pipette system capable of transferring various reagents (Figure 2:210) to an analytical chip. This is disclosed in paragraph [0025]. Paragraph [0027] states that disinfection fluids, such as bleach, are added to the chip to accomplish decontamination prior to disposal.

Kluttz discloses the apparatus as previously described above. Column 6, line 61 to column 7, line 10 indicates that wells (Figure 1:13) are provided as disinfection devices for the application of a disinfection fluid to the reaction chambers.

Patno, Kureshy and Kluttz are analogous art because they are from the same field of endeavor regarding reagent addition to an analysis chip.

At the time of the invention, it would have been obvious to utilize the reagent transfer system of Patno to deliver a disinfection fluid to the analysis chip. Kureshy and Kluttz each teach that the use of decontamination fluids prior to disposal are beneficial because they ensure that the chip is safe to discard. The pipetting system of Patno is fully capable of accommodating a disinfection fluid, especially since disinfection fluids such as bleach are well known in the art.

### ***Response to Arguments***

Applicant's arguments filed 23 August 2007 with respect to the 35 U.S.C. 102 rejections involving Kluttz and Doung have been fully considered and are persuasive. Therefore, these rejections have been withdrawn. However, upon further consideration, a new ground of rejection is made in view of the combination of Kluttz and Antonevich and the combination of Doung and Antonevich.



Art Unit: 1797

The Antonevich reference addresses the deficiencies of Kluttz and Doung by indicating that it is known in the art to utilize waste classification systems.

Applicant's arguments filed 23 August 2007 with respect to the 35 U.S.C. 103 rejections involving the combination of Patno with Kureshy and/or Kluttz have been fully considered and are persuasive. Therefore, these rejections have been withdrawn. However, upon further consideration, a new ground of rejection is made in view of the combination of Patno in view of Antonevich and further in view of Kureshy and/or Kluttz.

The Antonevich reference addresses the deficiencies of Patno by indicating that it is known in the art to utilize waste classification systems.

### ***Conclusion***

This is a non-final rejection.

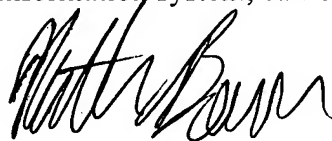
No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan A. Bowers whose telephone number is (571) 272-8613. The examiner can normally be reached on Monday-Friday 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



NAB



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